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Iowa Electric Light and Power Company

50-331

May 19, 1981  
LDR-81-183

LARRY D. ROOT  
ASSISTANT VICE PRESIDENT  
NUCLEAR GENERATION



Mr. James G. Keppler  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Re: Duane Arnold Energy Center

Subject: IE Bulletin 80-13, Cracking  
in Core Spray Spargers

File: A-101a, NRC-2, Bulletin 80-13

Dear Mr. Keppler:

In response to your letter transmitting the subject NRC IE Bulletin concerning cracking in core spray spargers which has occurred at BWR facilities, we have completed the Actions to be Taken by Licensees. The following discussion is provided to briefly describe the actions taken at the Duane Arnold Energy Center to address these NRC concerns.

ITEM 1: At the next scheduled and each following refueling outage until further notice, perform a visual inspection of the Core Spray Spargers and the segment of piping between the inlet nozzle and the vessel shroud. Remote underwater TV examinations are acceptable if adequate resolution can be demonstrated. The viewing in situ of 0.001 in. diameter fine wires is considered as an acceptable means of demonstrating suitable resolution of the TV examinations. Such techniques as the use of oblique lighting, and the ability to light from each side independently are considered useful in enhancing the image of cracks to facilitate detection.

RESPONSE: During the 1981 DAEC Refueling Outage, the core spray spargers and the segment of core spray piping inside the reactor pressure vessel were visually inspected using underwater TV and video tape examinations. No indications of cracks or structural failures were found. The resolution of the TV camera/video tape system utilized and the artificial lighting used was in compliance with the above requirements and was suitable for the application.

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The visual inspection of the core spray spargers and the segment of core spray piping inside the reactor pressure vessel will be repeated at the DAEC during each future refueling outage until further notice from the NRC. The results of the future core spray piping examinations will be submitted within 30 days of the completion of the examination as required by Item 4 (See discussion below).

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ITEM 2: In the event cracks are identified during examination of the core spray sparger system, the location and extent of the indications shall be recorded and reported to the NRC. Supplementary examinations using volumetric methods may be performed to aid in characterizing the extent of cracking in nonvisible locations. An evaluation shall be submitted to NRR for review and approval prior to return to operation.

RESPONSE: This item does not apply to the DAEC since no cracks were identified by the visual examination of the core spray sparger system performed during the 1981 Refueling Outage.

ITEM 3: Any cracking identified in the core spray cooling system shall be reported to the Director of the appropriate NRC Regional Office within 24 hours of identification.

RESPONSE: This item does not apply to the DAEC since no cracks were identified by the visual examination of the core spray sparger system performed during the 1981 Refueling Outage.

ITEM 4: A written report of the results of the examinations including any corrective measures taken shall be submitted within 30 days of the completion of the examination to the Director of the NRC Regional Office with a copy to the NRC Office of Inspection and Enforcement Division of Reactor Operations Inspection, Washington, D. C. 20555.

RESPONSE: This letter serves to document the results of the visual examinations of the core spray sparger system conducted at the DAEC in the 1981 Refueling Outage. The subsequent examinations will be performed in each future DAEC Refueling Outage in accordance with Item 1 above. The results of these subsequent core spray sparger system examinations will be submitted in writing to the NRC within 30 days of the completion of the examination.

If you have any questions or desire further information regarding this IE Bulletin, please contact this office.

Approximately 280 man-hours were required to conduct the required visual examinations and to prepare the response to this IE Bulletin.

IOWA ELECTRIC LIGHT AND POWER COMPANY

By: Larry D. Root

Larry D. Root  
Assistant Vice President  
Nuclear Generation

LDR/DWT/pl

cc: U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Division of Reactor Operations Inspection  
Washington, D. C. 20555

U. S. Nuclear Regulatory Commission  
c/o Document Management Branch  
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